

ABSTRACT OF THE DISCLOSURE

Face plates 11b and 12b of a hollow shape member 10 are abutted against face plates 21b and 22b of a hollow shape member 20. Projections 15, 16, 25 and 26 are formed to both sides of the face plates at the abutted areas. The rotary tool 50 comprises two large-diameter portions 53 and 54, and a small-diameter portion 51 disposed therebetween. The projections 15, 16, 25 and 26 of the portions 11b and 21b (12b and 22b) to be welded are sandwiched between the two large-diameter portions 53 and 54 upon performing the friction stir welding. According thereto, even if the heights of the abutted areas of the plates against the two large-diameter portions 53 and 54 differ, the face plates 11b and 21b (12b and 22b) will not be damaged (cut) by the tool since only the depth of the large-diameter portion being inserted to the projections varies. Therefore, the welding process will not reduce the thickness of the face plates, leading to design-related and function-related problems.